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Chapter 17
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THE PERCEPTION OF PEOPLE

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The present chapter deals with two traditional areas of inquiry. First, the recognition or identification of emotions in others; second, the judgment or perception of personality. In each case, we shall concern ourselves with studies designed to find how we perceive or draw inferences about others on the basis of expressive characteristics. Our emphasis will be upon the perception of people as a problem in cognition. How does one come to an impression of another person -- his traits, his intentions, his feelings?

It was the original intention of the Editor and the Authors to treat this topic in the broader perspective of "social cognition" -- placing the "knowing of people" in the wider theoretical context of how we know the environment generally. But because the study of social factors in perception, memory, and thinking is at the present time in such a state of rapid transition it was decided to place almost exclusive emphasis upon the topic of how people perceive and judge other people. There are, fortunately, recent reviews of the broader area of social cognition to which the reader may be referred (Blake and Ramsey, 1951; Bruner and Krech, 1950; Vernon, 1952; and Vinacke, 1952). It is our conviction, moreover, that the problems raised by investigations of how people perceive others are of such fundamental importance as to warrant a special assessment in their own right.

RECOGNITION OF EMOTIONS

To what extent are emotions recognizable by an observer? What kinds of information or cues does he need in order to recognize an emotion? By what process does an observer come to intuit, understand, or infer what emotion another is experiencing? Are some individuals better than others at this activity? This is the order of question to which the present section addresses itself.

To what extent are emotions recognizable.

Typically, recognition studies involve the presentation of a stimulus (an expression of emotion) to a group of judges whose task it is to label the emotion being expressed. Such, however, has been the variety of stimuli, procedures, and judges used, that the results obtained are scarcely additive. For it is not apparent yet how to compare results obtained under such different conditions.

Consider first variations in the kinds of stimuli used. One finds a real person (Sherman, 1927a), a photograph of a person (Darwin, 1872; Ruckmick, 1921; Feleky, 1922; Frois-Wittmann, 1930; Dunlap, 1927; F. H. Allport, 1924; Landis, 1929; Jenness, 1932b; Munn, 1940; Schlosberg, 1952), a diagram or drawing representing a person (Piderit, 1886; Boring and Titchener, 1923), a record of a person's voice (Sherman, 1927b). The emotion being expressed was sometimes caught in its natural state (Munn, 1940; Sherman, 1927a), sometimes purposely produced in the laboratory (Sherman, 1927a and b; Landis, 1929; Coleman, 1949), sometimes "posed" by a person (Ruckmick, 1921; Feleky, 1922; Frois-Wittmann, 1930), sometimes drawn by an artist (Langfeld, 1918), sometimes produced by combining in certain ways interchangeable features of a human face (Boring and Titchener, 1923; Buzby, 1924; Fernberger, 1928). Indeed, there have been serveral investigations of which components or parts of the face contribute most to the recognition of emotions. Among many contradictory and inconclusive findings, surprise and fear seem to be shown best in the upper part of the face, laughing and smiling in the lower half (Boring and Titchener, 1923; Dunlap, 1927; Frois-Wittmann, 1930; Hanawalt, 1942, 1944; Coleman, 1949).[*]

It is not surprising, then, that the evidence of the recognizability of emotional expressions is unclear. Some writers have reported chance performances

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[*]The references given in this paragraph are illustrative rather than exhaustive.

on the part of their subjects in recognizing emotions, whatever the nature of the expressive stimulus.[*] Others have shown that emotional expressions were labelled with considerable accuracy.[**]

Before proceeding to an evalutation of this contradictory evidence, several critical technical points must be considered. Perhaps by elucidating these one may get a better sense of what may lead to correct or incorrect recognition of an emotion.

The first technical problem has to do with the nature of the discrimination demanded of the subject in the emotion-judging task. To judge fear from anger, we may assume, is a more difficult discrimination than judging love from disgust. This is, to be su.., a banal point, but the fact of the matter is that in many studies it has not been taken into account. Thus, in scoring "errors" of recognition various authors have treated failure of discrimination of the one sort as of the same status as errors of the other. The size of the error, as Woodworth (1938) has pointed out, has frequently not been taken into account. But in order to determine the magnitude of a discrimination failure, it is necessary first to scale emotional expressions in terms of their difference. In principle, there are two ways of doing this. The first is in terms of the physical properties of the stimuli. Examples of such scaling of qualitative attributes, of course, is the ordering of hues by wave-length or pitches by cycles per second. At this stage of our knowledge it is probably infeasible to attempt such scaling. The other alternative, utilized by Woodworth, is to order emotional

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[*] E.g. Langfeld, 1918; Guilford, 1929; Buzby, 1924; Jarden and Fernberger, 1926; Fernberger. 1927, 1928; Landis, 1929, with photographs of real laboratory elicited emotions.

[**] E.g. Darwin, 1872; Shultze, 1912; Goodenough, 1931; Stratton, 1921; Woodworth, 1938.

expressions in an array such that one finds maximum confusion between neighboring pairs, with confusion diminishing as one chooses pairs separated by several intervals. If one can order emotional expressions in this way, then it must follow that emotional expressions are discriminable. Woodworth has shown, by utilizing Feleky's (1924) data, that emotions can be ordered in such a scalar pattern. The continuum that fulfills these conditions is as follows: love, happiness, mirth, surprise, fear, anger, suffering, determination, disgust, and contempt. He observed, moreover, that certain portions of the scale were less discriminable than others. Indeed, discrimination between love, happiness, and mirth appeared to be at chance level. By combining the points along the scale where discriminability was at chance, Woodworth was then able to construct a grosser scale where the distances between emotions were more comparable in terms of the "just-noticeable-differences" separating them.

Woodworth then reanalyzed the published results of Ruckmick (1921), Gates (1923), Feleky (1924), and Kanner (1931), after grouping the stimulus expressions (posed pictures) and the judges' responses into the following intervals: (a) love, happiness, and mirth; (b) surprise; (c) fear and suffering; (d) anger and determination; (e) disgust; (f) contempt; and (g) a residual category. Using this continuum, he showed that judgments seldom missed by more than one step. He thus concluded that as a whole, judges of emotions from posed photographs do strikingly well./ Schlosberg (1952) has recently extended Woodworth's scalar idea, attempting to show that Woodworth's array can be described as falling on an oval plane whose perpendicular axes can be labelled respectively Pleasantness- Unpleasantness and Attention-Rejection. The analogy to

Using several sets of posed and unposed photographs

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the color circle and similar geometric representations is, of course, by inten-
tion. Schlosberg obtains fairly good fits of Woodworth's intervals to his oval
model.

The second methodological consideration is the nature of the identifying
labels that judges are asked to use. Munn (1940) has shown, for example, that
subjects reach higher agreement in judging if they are allowed to use their own
terminology and categories. Most writers have not asked their judge for free
descriptions but have used multiple-choice procedures. There is no reason to
assume that different individuals are equally inclined to utilize the same
categories for ordering emotional expression. It may be, for example, that an
individual who is much preoccupied with fear of social rejection will be more
sensitized and accurate in perceiving anger and annoyance in others but that
he may label such emotion in others as "meanness." The use of the label may
even have a defensive significance for him. If such were the case, then it
would be misleading to report that this individual did not show much ability in
recognizing anger or annoyance, simply because he did not label the phenomena
in those terms. We feel that it is necessary to carry out studies both in the
phenomenology of emotional expression -- i.e., what things different people see
as the same emotion -- and in labelling behavior. On the latter point, it would
not be amiss, in our opinion, to carry out investigations of changes in
labelling of emotional expressions by children of different ages better to

understand the manner in which differentiated verbal labelling develops.

A puzzling problem is raised by the work of Langfeld (1918), on willingness to accept labels or categories for the description of particular emotional expressions. For example, Langfeld has found that when subjects were asked to describe 105 of the Rudolph picture series (artist's sketches) only 32% of the judgments agreed with the labels given by the artist. If the artist's titles were shown to the subjects, however, with the requirement that they accept or reject the title, close to three-quarters of the titles given by the artist were accepted. If "erroneous" titles were provided, 43% were accepted, although this last finding is not quite clear in its implication, since "erroneous" is a term that needs analysis by means of some such scaling device as the one proposed by Woodworth, Frois-Wittmann (1930), or by Schlosberg.

Woodworth's demonstration that judgments of this type can be quite good -- provided one takes into account the fact that emotions seem to have expressions that are arranged along a continuum, rather than being, so to speak, in separate and unrelated categories -- seems quite helpful in interpreting such results. For, if the set of the subject is such that he asks of himself whether a certain pose is a possible expression of the emotion referred to by the title, then it is likely that he would find several titles fitting several poses and several poses fitting several titles. But the "error" might, again, not be too great. As Fernberger (1928) noticed, "false" interpretations suggested by the experimenter were accepted except when conflicting strongly with the intended expression. Thus, what a given expression might signify by way of an emotion is not necessarily the same thing as what it most probably signifies. In this sense, the nature of the categories used in judging must be examined from the point of view of the judging set in terms of which they are being used.

One final technical problem requires analysis. The "recognition of

emotion" involves the presentation of a cue (i.e., a face in a certain state) and the requirement that the subject indicate what the cue "stands for" in terms of the internal state of another person. What is required of the subject, then, is an inference: the solving of a sign-significate relation. In this sense, the judgment of emotion is of the order of a problem-solving task. The nature of this problem-solving task is especially difficult. The best evidence available seems to indicate that there is no invariable pattern (or at least no innate invariable pattern) of expression accompanying specific emotions. Expression seems to vary with the situation. This means, essentially, that the judge may require more information than is provided by the stimulus properties of a face presented photographically or in a drawing.

Thus Landis (1924) found, for example, that there was no invariable facial component in his cinematic records of psychology graduate students and instructors subjected to various emotional stimulation. Woodworth (1938) re-marks/that there seemed to be a great deal of forced smiling, perhaps as a about the above study result of the effort by subjects to prove they were "good sports." One may inquire, then, whether the expression of the emotions being felt by Landis' subjects are not more a social response to a particular emotion-provoking situation than the expression of some presumably innate pattern. If such knowledge were present, it might be possible to evaluate the misleading cues provided by smiling. Without such information, the smiling is, in essence, a masking stimulus.

The question of amount of information provided the judge of another's emotions is a deep one. Virtually all the evidence available points to the fact

that the more information about the situation in which an emotion is being ex-
pressed, the more accurate and reliable are judgments of the emotion (e.g.,Jenness,
1932 a and b; Fernberger, 1928; Landis, 1929). As Fernberger has put it, "If
a stimulus situation is indicated, the emotional state is judged in accordance
with that situation rather than in accordance with the facial expression." It
is worth pausing to examine in some detail what this conclusion signifies for
research in this area.

Work in the field of information theory (e.g., Shannon, 1948) indicates
that most familiar sequences have about them the characteristic that prior events
place constraints on the likelihood of later events occurring. If the sequence
of letters ELIZABE** is given, completion of the word by different judges would
yield higher agreement for English speakers than it would if the sequence con-
sisted of EL****** and lower agreement than if the sequence were ENGLAND'S
QUEEN ELIZABE**. We may speak of constraint placed on any single item by pre-
ceding or contextual items as redundancy. Complete redundancy may be represented
as that instance in which, given a certain sequence, one and only one item
following it is possible. In terms of the usage common in such analysis, an item
thus constrained is said to carry no information or to be redundant. Now it has
been shown by Miller, Heise, and Lichten (1951) for words in sequence and by
Miller, Bruner, and Postman (1954, in press) for letters in sequence, that the
greater the constraint introduced by a sequence or context, the easier or more
rapid or more reliable is the task of recognizing the item whose relative re-
dundancy has been increased by virtue of being in the sequence or context. Let
us return now to the matter of judging another's emotion.

We present a picture of a grimacing face to a subject with the information that the photograph was taken while the subject was viewing a hanging. To another subject we provide the prior information that the photograph was snapped as the subject was breaking the tape in a 100-yard dash. In the first instance the judgment will be "disgust" or "anxiety" or some other appropriate label. In the second it will be "effort" or "determination" or the like. In each instance, prior knowledge has the effect of reducing drastically the number of alternative emotions likely. The expressive face being judged will be related to a likely constraining sequence. Indeed, even if the faces shown in the above examples were smiling, the same constraining factors would operate: in one instance the smile would be seen as possibly "vengeful satisfaction," in the other as "elation," and so on.

We do not agree with Fernberger's conclusion that "the emotional state is judged in accordance with the situation rather than in accordance with facial expression." In the process of categorizing and judging his environment the individual generally does not deal with discrete events but rather extended sequences <u>of</u> events. Facial expression is one aspect of the sequence being judged. Indeed, it is thanks to the context provided by larger sequences that we are rarely left in a state of confusion about whether it is mirth, love, or happiness that is being expressed -- although we would be confused, we know from Woodworth (1938), if <u>no</u> context were provided.

Hebb (1946) has made the point that an important cue for judging emotion is knowledge of the baseline state of expression preceding the emotional expression being judged. We should like to suggest that this is still another

instance of constraint by context. Expressions do not turn into each other in random order. A smiling face following a grimacing one represents one cue sequence; a smiling face following a rather calm expressionless one is quite another kind of cue.

Again, the cultural stylization of emotional expression and the recognition of such stylized expression represent still further instances of the importance of context and constraint. Klineberg (1940, p. 172) reports, for example, that the young Chinese girl is admonished, "'do not show your unhappiness easily and do not smile easily --- and do not let your teeth be seen when you smile!'" Adams (1937) has noted the reduction in inhibition of emotional expression in comparing Hawaiian Japanese with Japanese from rural districts of Japan whence many of the former group originated. Labarre (1947) provides many instances along the same lines. In short, certain sequences of expression are prescribed by a culture and learned. The learning operates not only for the expressor but also for the individual who must judge the emotional expression. It is by such learning of larger contexts that the happy Chinese girl is seen as "happy" by her fellow-villagers and as "shy" or "blank" by Western Europeans.

There is another technical point that deserves serious thought and this has to do with the variability with which different individuals express

the same emotion. This important matter has been given little empirical attention in studies of recognition. In fact, most investigators seem to have gone on the implicit assumption that the stimuli they used (faces in one form or another, expressing emotions) are representative of the intended emotion and let the matter go at that.

This observation applies to inquiries using posed "expression" (Feleky, 1914, 1924; Ruckmick, 1921; Kline and Kline, 1927; Frois-Wittman, 1930), photographs and movies of laboratory produced emotions (e.g. Coleman, 1949), and cases where genuine emotions were recorded by "candid" photography (e.g. Munn, 1940). In each of these instances the number of different individuals representing expressions of the same emotion was very low, mostly consisting of one or two persons (Brunswik, 1947).

In view of Landis' (1924) finding that subjects exposed to the same emotion-evoking stimuli expressed their emotion in discernibly different expressive forms, it seems to us that a failure to sample various modes of expressing an emotion is a serious matter. If there is no "standard" expression for mirth, for example, then the use of only one or two faces expressing mirth in a recognition test must surely violate the canons of proper sampling method.

After considering the four technical problems -- the nature of the discrimination demanded of the subject in judging emotional expression, the nature of the categories or labels in terms of which emotional expressions are to be sorted out, the nature of the constraining information provided the judge and the problem of sampling emotional expressions -- we may return finally to the question "To what extent are emotions recognizable?" We must come to the

chastening conclusion that the literature is sufficiently
haphazard to preclude a systematic answer to this question. It depends on the
difference in the emotions being expressed, upon the number and kinds of cate-
gories in terms of which judgment must take place, upon the amount of contextual
information given the subject. That one can provide a multitude of situations
in which accurate and consensual judgments can be obtained -- of this there can
be no question, if ever there has been one. Whether one can judge emotions
accurately in situations where all information has been withheld save for that
provided by a still photograph of a face, again the answer must carry dependent
clauses. Woodworth (1938) has shown that, if discriminably different enough
emotional expressions are used, then subjects can do far better than chance.

In the end, one wonders about the significance of studies of "facial
expression of emotion" in isolation. From the point of view of the adaptiveness
of social behavior, it is rare to the vanishing point that judgment ever takes
place on the basis of a face caught in a state similar to that provided by a
photograph snapped at 20 milliseconds. Historically speaking, we may have been
done a disservice by the pioneering effort of those who, like Darwin, took the
human face in a state of arrested animation as an adequate stimulus situation
for studying how well we recognize human emotion. If research on this topic
is to be revivified, it is plain that a more catholic view will have to be taken
about the nature of the cues we use in judging whether a man is sad, in
pain, grieved, or in love.

What characteristics in a judge aid in the recognition of emotion?

The first question one must face here is whether the capacity to recog-
nize emotion is "innate" or "acquired." That there is evidence of very early

ability to distinguish certain "emotions" in others is incontrovertible. The
fact that young babies can be made to cry by a contorted face made by the mother
indicates certain primitive discriminative capacity. Indeed, Hebb (1946) has
shown that chimpanzees can be precipitated into a fear reaction by presentation
of an unusual mask. Yet there is little evidence that discriminative capacity
goes much beyond such a primitive level in the young baby. Bühler and Hetzer (1927)
Hetzer and Tudor-Hart (1927) and Bühler (1930, 1933, 1935) have shown that there is
a striking lack of specificity in the stimuli capable of evoking a smile in the
baby (one of the stimuli was scolding). Bühler concludes that recognition is

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The findings of Spitz (1946) put the matter of discrimination of facial expression
in a different light. He centered his attention upon the smiling response in the
infant and the conditions producing it -- primarily those conditions having to do
with the presence of another human being. Up to two months of age, a human face does
not produce a smiling response in the baby. From about two to six months, the
presence of any human face in full frontal view evokes a smiling response -- whether
the presented face is smiling or threatening. Even a mask will evoke the response
as well as a strange face the infant has not encountered before. After six months,
the smiling response becomes increasingly discriminative and only a familiar face
has the capacity to elicit a smile.

section should be applied in evaluating these findings.

A conservative interpretation of these observations would be that ex-
pressions of emotions are not recognized in any but the grossest form on the
basis of innate capacity but that discriminative capacity develops only with the

social experience of the individual. One source of support for this assumption, even for drawings of emotional expression, comes from the work of F.H. Allport (1924) -- confirmed by Guilford (1929) but questioned by Jenness (1932b)--- who found that subjects could be trained to improve their recognition of emotions (Rudolph pictures). The worst judges improved the most, the best least. F. H. Allport concludes that "while there may be innate differences of a general sort in the sensitivity required to learn facial expressions, the broad differences between individuals in this respect are due to differences of practice in reacting to the expressive criteria" (1924, p. 228). His results, on the other hand, may be due to a statistical regression effect well known in studies of judgment.

That the state of the judge may have a profound effect on his perception of emotion is, of course, a truism of psychopathology. The paranoid patient sees others as snubbing or rejecting him. The latent homosexual may see others as making advances. The young girls, subjects in Murray's well-known experiment (1933), see faces as more malicious after indulging in a game of "murder." An old maid may see lust all about her.

There appears to be abundant evidence in the literature that the ability to judge the facial expression of emotions as represented in such drawings or pictures as the Feleky, the Ruckmick, and other series is correlated with test intelligence. Gates (1923), Kellogg and Eagleson (1931) and Kanner (1931) have all reported studies indicating moderate correlation. Indeed, Moss and his coworkers (1927) were sufficiently convinced that this ability is correlated with social intelligence that they have included a series of facial expressions to be recognized in a test of social intelligence. Perhaps the safest conclusion to

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draw from this work is that the more intelligent utilize cues more efficiently for making inferences about the states or conditions of things. Whether this capacity to draw inferences on external signs holds uniquely for judging emotional states in still pictures or whether it is a general character of intelligence remains a moot point. One would want to compare ability to infer emotion with ability, say, to infer what is going on in a pictorial scene -- what the characters portrayed are doing. One might well suspect that the two kinds of activity might be highly related.

As to sex differences, the literature is somewhat confused. F.H. Allport (1924) and Guilford (1929) have reported no differences on the Rudolph pictures. Jenness (1932a), using a larger sample, obtained superior scores for women. Kanner (1931) using the Feleky series found that men excelled slightly. Fernberger (1928) adds to the neutralist position with a study indicating no sex differences on the Boring-Titchener model, although Buzby (1924) has shown that women are superior on some of the faces in this series. Coleman (1949) reported no sex differences using movies of laboratory elicited emotions. As Jenness (1932a) concluded in his careful review, "The net results ... would seem to indicate that women slightly excel men as judges of facial expression of emotion."

Although there is no treatment of the topic in the literature, it would seem that one of the critical factors affecting a judge's ability in recognizing emotions through their expression would be the ability to break through the camouflaging effects of convention and politesse. One person is able to "see through" a strained smiling face, another takes any smile as directly indicative of an internal state of joy. It does not do to take an attitude of hauteur toward common sense observation simply on the grounds that psychologists have not concerned

themselves with experiments on this problem. The dramatic device of the mask,
say in The Great God Brown by Eugene O'Neill (1941) or in the metaphorical usage
of Pirandello's Henry IV (1923) perhaps lead to more hypotheses about this prob-
lem than does an examination of most of the traditional literature in the field.
Nor is this remark intended to be derogatory. The fact is that there are those
within our society who have concerned themselves for a lifetime with the nature
of knowing a fellow man's state in spite of his best efforts at social conceal-
ment. We would do well, perhaps, to look more carefully at the "insights" of the
dramatists and poets -- if only in the spirit of searching for ideas to test.
The record of professional psychologists in this field provides little justifi-
cation for creating barriers against "outside ideas."

FORMING IMPRESSIONS OF OTHER PERSONS

Introduction

We shall be concerned here not with the manner in which psycholo-
gists perceive or judge or assess people, but with the layman's per-
formance.

What one notes about one's fellow men varies, of course, with the cul-
ture. As Hallowell (1951) points out, the Ojibway male apparently remarks first
whether a woman is a totemic sister (and sexually taboo) or not. We may perceive
first a person's general dress, his seeming directness, or his warmth or

rejectingness. Culture and the demands of the situation are of critical importance. If the context is occupational one notices goodness or badness as a yam picker or as an experimental physicist. If it is sexual, other characteristics become salient.

So too the variables inferred -- the layman's typology or conception of "dynamics." In our culture inferences concerning "honesty," "sincerity," or "gentleness" may quickly emerge upon the perception of certain behaviors. In another culture, other typologies are used: perhaps, as in certain Southwestern Indians, whether the person has or does not have witchcraft powers.

Inevitably, it would seem, the categories into which human behavior and people are placed find their way into the lexical structure of the language. There are few if any careful studies of the kind and frequency of usage of trait names in different societies, nor any ambitious work in the realm of ethnopsychology -- the comparative study of folk psychologies in different cultures. Indeed, within our own culture, much can be done and would be worth doing on occupational and class differences in "theories" of personality -- if only by a study of the personality terms used.

The selective effect of role-relationship upon our perception of others is also worth noting. One does not see and assess one's parents in terms of the same dimensions reserved for friends; what we look for in our own children may differ from our way of looking at children in general. Moreover, the inferences about personality drawn from our observations differ as a function of the roles of the individuals involved. "High brow" behavior in a white and in a Negro may not lead to the same inference about the person. Bantering behavior in a child

leads to one inference when it is directed toward an adult stranger, another when directed toward his father.

The internal state of the perceiver is also of utmost importance. A person in a state of fear or insecurity will not perceive behavior nor draw inferences in the same terms as one who is in a relaxed and secure state. We may be predisposed to perceive selectively the behavior of another and to infer his "character" or "intentions," in a manner congruent with our own needs.

Finally, there is undoubtedly a powerful factor of realism involved in perceiving another's behavior and in forming impressions of his "personality" or inferring what he is likely to do next. We may either think of this factor as "the contribution of the stimulus" or as a result of learning. Undoubtedly there are certain features of human behavior -- viewed now as a stimulus affecting another organism -- that provide reliable cues to a very inexperienced organism. A quick lunge with intent to injure is reacted to "as if" it were categorized as a noxious stimulus even by a young child. Over and beyond this primitive level, there is much learning involved before man learns how to organize perceived behavior sequentially in a manner that will permit reliable and consensual inference. This learning occurs in a cultural context: certain sequential patterns are singled out and labelled and taught to the growing child as useful discriminations, others not. Once cues are learned, once the growing organism learns to organize sequences of behavior in certain ways, then we may speak of the constraining effect of the stimulus. When the "stimulus" becomes dominant in this way, then we may assume that new expectancies, needs, and other factors have less of an effect in varying either perception of behavior or the process

of inferring the internal state of others.

Early studies on "judgment of personality" as antecedents.

A number of trends have merged to produce the orientation of contemporary investigations. The "modern" trend focuses upon the processes of perceiving and judging; the "early" studies concentrated upon the accuracy of perception or judgment. The early work grew out of a combination of interests: validation of test procedures by independent judges, assessing traits of personality, concern for what constituted a "good" judge of personality.

Earlier investigations focused upon the characteristics of the judge; the characteristics of the person to be judged; the procedures used in judging; and the criteria used for assessing accuracy.

Judges. In a typical study, the judges might be "varied" in several respects: age, sex, intelligence, personality characteristics, psychological training, occupation, relationship to and likeness to subject, degree of acquaintance with subject, etc.

Persons judged. Subjects whose personality characteristics (as measured by tests or assessed by experts) were to be judged were presented in verbal vignettes, in films, in person, via test scores, through voice, handwriting, expressive movement, etc. They varied in age, sex, intelligence, personality, etc. In some studies, the subjects were also the judges -- all members of a group judging each other and being in turn judged as in a fraternity, a therapeutic group, or a crew. Indeed, in Wolff's study (1943), the judge had the task of making a judgment about himself as subject without being aware that the

disguised pictures and samples of handwriting were his own.

Procedures. The procedures used for judging subjects have indeed been various. The basic requirement was that the "real" status of the subject (as tested or expertly judged) be compared with the judges' estimate. Prediction, rating, ranking, free description, check lists, matching procedure are all represented in the literature as means of obtaining estimates from judges.

Criteria. By the criterion is meant the datum or value against which the judge's rating is to be compared. The subject's own behavior (in a prediction procedure), his psychometric score, his ranking, his self-rating, his responses to a questionnaire have all been used. The consensus of expert judges or a diagnostic council, the diagnosis of a psychiatrist or clinician -- these too have been used. That the problem of choosing a criterion is the most critical one in assessing this area of research will be evident when considering as an example the case in which a diagnostic criterion given by a psychoanalyst is matched with the kind of judgment that would be made by a layman serving as an observer in the experiment.

Since good reviews of the literature on judging personality are available in the works of Symonds (1931), Vernon (1933), G.W. Allport (1937), Estes (1937), and Taft (1950), our discussion will emphasize the processes of judging personality rather than the correlates of achieving judgmental accuracy.

First, several general judgmental effects are to be noted. The best known of these is the halo effect, a term coined by Thorndike (1920) and observed as early as 1907 by Wells. Wells found that judges tended to rate subjects on several traits in terms of a general impression of goodness or badness (the

"halo") and that this introduced a spuriously high correlation into their ratings. With great ingenuity, later investigators (interested more in rating methods than judgmental phenomena) have worked out procedures for minimizing the effect of halo. Yet the effect itself has become interesting in its own right (e.g. Rugg, 1921, Symonds, 1925, 1931), reflecting as it does a tendency on the part of the subject to "package" the myriad impressions he receives from another person. Halo effect is found to be most marked when the traits to be judged are unclear in behavioral expression, when they are not frequently used by the judge, when they have moral implications. Halo seems to increase with increased acquaintance (Symonds 1925, 1931).

A somewhat related tendency toward packaging information is described by Newcomb (1931) and called by Guilford (1936) the logical error. On the basis of personal experience judges have conceptions as to what traits go with what other traits. If you will, this is the judge's conception of the "causal texture" of an individual. Thus, if one rates a person high in aggressiveness, one will be more disposed to rate him high rather than low in energy. This "error," of course, has become the subject of much direct research by psychologists interested in formation of impressions (e.g., Asch, 1946).

A third judgmental tendency, the leniency effect, is perhaps more culturally variable. It consists, of course, in the tendency to rate others (and also oneself) high in favorable traits and low in unfavorable traits. It goes without saying that such a judgmental tendency markedly affects trait attribution studies such as the investigation of projection by Sears (1936). The tendency toward leniency might well reduce the likelihood that one will project undesirable

characteristics in oneself on others. Viewed as a judgmental phenomenon, leniency poses interesting problems. Recently, Lemann and Solomon (1952) have pointed out that it may be necessary to conceive of two forms of rating scales characterizing judgment of other people. The "alpha scale" is one that extends from good to bad, an example being the continuum from generous to stingy. On such scales, there is a tendency for rating distributions to be skewed toward the "good" end -- the leniency effect. In "beta scales," extending from bad through good to bad, leniency leads to a piling up of rating in the middle. Such a scale comprises the continuum from shy through a good middle point to bold. The results of Lemann and Solomon (1952) indicate a need for caution in choosing the kind of scale one employs in rating studies, and in grouping scale items for purposes of analysis.

What one makes of the leniency effect depends, of course, upon the nature of one's interest in judgmental phenomena. In classic terms, it is little more than a special instance of central tendency of judgment, with ratings regressing on an idealized middle point: i.e., lacking full information, one operates on the assumption that people are moderately good. From a cross-cultural viewpoint, however, it is striking to note that in a study of personality rating by Chinese students (Trow and Pu, 1927), the leniency effect is markedly reduced. Perhaps the degree to which the effect operates is a function of the culture's "null hypothesis" about human nature.

Consider now the various determinants of "accuracy" in judging another's personality. At the outset, knowledge of the purpose of the procedure increases accuracy (e.g., Paterson, 1923), as does the interest of the judge in the rating

procedure (e.g., Conrad, 1933). The more a trait being judged is behaviorally visible, the easier the judgment (e.g., Estes, 1937), and insofar as the trait to be judged is important in the interpersonal relation of judge and judged it will be more easily judged (e.g., Chowdhry and Newcomb, 1952). Bender and Hastorf (1950) found that subjects could predict better their friends' responses to social situation items such as those in the ascendance-submission test (Allport's), than responses on items regarding social feelings.

Degree of similarity between judge and judged tends to increase accuracy of judgment, whether similarity is in terms of sex, age, background, complexity, personality characteristics (cf. G. W. Allport, 1937). Kinder (1925) has found, however, that similarity also has the effect of making judgments more favorable. In a more recent study by Notcutt and Silva (1951) in which husbands and wives predicted each others' self-ratings, it was found that accuracy of predictions exceeded chance and that successes were greater on those items in which husband and wife were most similar in their self-ratings.

The relationship between judge and judged has been shown to affect ratings differentially and consequently has a bearing upon accuracy (Webb, 1915). Kelley (1948) found that by giving his judges different role-expectations (leader, follower, or unspecified) they would concern themselves with different aspects of the stimulus person. Degree of acquaintance especially if accompanied *makes for more favorable ratings* by intensification of affection (e.g. Knight, 1923, Shen, 1925, Ferguson, 1949), Difference in age (Newman, 1946), rank or status differential (Williams and Leavitt; 1947; Powell, 1948; Sisson, 1948; Fiske, 1949) all influence ratings. By and large length of acquaintance aids accuracy. The effect of the type of relationship upon accuracy, however, depends upon the type of judgments required (e.g., Williams and Leavitt, 1947). Thus, fellow officer-candidates were better predictors of combat performance than were training officers.

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(Insert page 23)

The feelings held by the judge for the judged affect, among other things, the extent

to which the judge regards the other person as similar to himself. Fiedler, Blaisdell,

and Warrington (1952) found that subjects assume greater similarity between themselves

and their positive (sociometric) choices, than between themselves and their negative choices

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The nature of the interaction between judge and judged may be a critical factor both in the manner in which one person judges another and in the accuracy of that judgment. Consider the following situation. An enlisted man in the Army is a mechanic in a motor pool. In the course of his work, he comes into contact with two different men. One is a fellow enlisted mechanic; the other is the officer who will eventually lead the group in combat. By virtue of observing the same man, the officer will form an impression in terms of the man's reliability, initiative, and courage; the fellow mechanic may form his impression in terms of whether the other man is a "nice guy," a good mechanic, and cheerful. Each is observing and making inferences based upon those aspects of behavior of the mechanic that might affect their interaction with him. Again, both fellow soldier and officer may consider the same mechanic on the basis of "nice-guyness." Yet they may come to very different conclusions, having "looked" at this man from very different points of view. The fact that the mechanic is a good fellow to drink with may have played an important part in the judgment of the fellow mechanic. This very behavior at the bar may have led the officer to an opposite conclusion. Now, it is also apparent that if one is highly practiced in certain kinds of interactions -- is, for example, a very experienced officer or a very experienced motor pool mechanic -- one becomes very adept in picking out relevant and reliable cues for use in making judgments. The officer learns what to look for in judging the combatworthiness of his men; the motor pool mechanic learns to know the cues to look for in assessing a fellow worker. Thus, at least two things occur by virtue of the character of the interaction between individuals. In the first place, there is a tendency for one to notice different things, i.e., to notice those things about another that affect the fate of an interaction. In the second place, when an individual is habitually involved in certain forms of interaction, he becomes increasingly skilled (and possibly more accurate) in the use of relevant cues for making judgments. It is our feeling that more research is needed in this area, that only a beginning has been made in studying the manner in which the nature of an interaction affects judgment.

Confidence in one's judgment has an equivocal relationship to accuracy, some writers finding a positive relationship (e.g. Odbert, 1934), some a negative (e.g., Steinmetz, 1947), and some none (e.g., Polansky, 1941).

The formation of a first impression of a person prior to rating may have the effect of rigidifying and impairing later judgments according to Dailey (1951). But there is unfortunately little work on the sequential steps involved in coming to an accurate judgment on the basis of increased information or increased experience with the task.

"Openness" of a subject was found to be a critical factor affecting accuracy (Estes, 1937) and one might indeed investigate what are the characteristics of "open" and "concealed" expressive types -- a subject alluded to in the previous section on judgment of emotion.

There is much speculation but little data on the difference between analytic and global attitudes in judgments of personality. In general, it has been found that judgments made with a "global" or "intuitive" attitude are more accurate than analytic judgments (e.g., Cantril, 1932; Estes, 1937). Perhaps related to this finding is the further report by Estes that artists tend to be better judges than psychologists, if one assumes that the former operate more "globally" or "intuitively" than the latter.

Is there a relationship between self-insight and accuracy in judging others? The question, more out of procedural than substantive considerations, is a highly complex one. Several types of investigation bear upon it.

The first set of studies comprises those in which "insight" is equated operationally to agreement between the ratings one gives oneself on certain traits and the ratings accorded one by others. If one agrees with others about oneself, "insight" is said to be present. More often than not, the others against

whom one's self-rating is pitted are peers -- fraternity brothers, class-mates, dormitory neighbours. Weak though the procedure may be, it has yielded suggestive results.

Sears (1936) had fraternity brothers rate themselves and each other on four traits. Lack of insight on undesirable traits was found to be correlated with bias in rating others on these traits, the deviation from consensual accuracy being in the same direction for self-rating and the rating of others. Lemann and Solomon (1952), using much the same design, were unable to replicate the result on college women. Frenkel-Brunswik (1942), using three psychologists as subjects and the Murray need list as her rating variables, also found no simple relation between "insight" (again defined consensually), and accuracy in judging others. Taft (1950) similarly found slight but unreliable positive correlations between self-rating ability and ability to rate others.

Two additional investigations, both based on the consensual method, suggest the presence of a relationship between the two kinds of abilities. Rokeach (1945) found that girls who could rate their own degree of beauty in agreement with others' judgments of it, were the better judges of others' beauty in the sense of agreeing with group standards. Green (1948) obtained a correlation of .74 between accuracy in estimating one's own leadership (as established by pooled judgments by others) and ability to judge leadership in others.

The next set of studies is indirectly related to the question at hand. In these investigations, attention is focussed upon the personality characteristics of good judges of self and good judges of others -- consensual agreement again providing the criterion. Logically, if those able to judge their own

traits as others do are found to differ from those able to judge others in agree-
ment with fellow judges, then one might conclude that the two abilities stem from
different sources. Adams (1927) asked eight teams of ten girls each to rate
themselves and each other on 63 traits and found that the good judge of self
and the good judge of others differed in terms of their personality traits (as
defined by consensus of others). In general the good or "agreeing" self-rater
tended to be happier, more intelligent, less gloomy, less irritable, more sympa-
thetic, generous and courageous than the good or "agreeing" judge of others.
The good judge of self has outstanding social interest and adaptability. Vernon
(1933) used self-inventories as criteria in addition to pooled ratings by others,
and found results that agree with Adams. Taft (1950) essentially confirmed these
findings but he adds that while the good judge of self has the desirable char-
acteristics listed above, he is also (according to independent ratings by
psychologists) less stable.

Several investigators have attempted to use independent measures of
insight -- either inferential or clinical in nature -- against which to compare
degree of accuracy in rating others. One of the earliest of these was a study by
Vernon (1933). Between insight independently defined and consensual accuracy of
of self-rating he found a correlation of .39. A correlation was not found be-
tween independently defined insight and ability to rate others in agreement with
other judges. Weingarten (1949) found that insightful judges (insight determined
clinically by analysis of autobiographies) projected their tensions onto others
less than did non-insightful judges. Finally, Dymond (1948 and 1949) reports
that the ability to "empathize" (richness of characters in TAT stories) tends

to be related to the person's insight as measured by whether he shows in a clinical interview any understanding of his own relations to others as these are revealed by his own TAT protocol.

One might find better correlations between self-accuracy and accuracy in judging others by employing a "deeper" definition of insight. Yet the few available studies on the subject have produced somewhat dubious findings -- largely because they have fallen short of proper design. Thus, Estes (1937) finds no difference between psychoanalyzed judges and those not analyzed. But are the judges otherwise comparable? Murray (1938) concludes on the basis of his observations, that analyzed judges are better. A definitive study remains to be done.

Considering in perspective the studies using consensus for the definition of insight and those using independent criteria, it is difficult to say whether one should expect comparability. Those who agree with peers about what they are like may represent one form of insightfulness. It may be the kind of insightfulness not related very highly with the ability to see others as most people find them. It is conceivable that certain more covert forms of insight -- where the individual's estimate of himself is out of kilter with the opinions of his peers but in agreement with the opinions of his therapist -- that such insight may be related to consensual accuracy in other ways. One thing that is clear is that consensual insight as used, say, by Lemann and Solomon (1952) is not of the same breed of concept as insight used by Murray (1938). Each is psychologically interesting, but their relation is not clear.

The preceding discussion and much of what follows is premised upon the

assumption that "accuracy" in social perception is a generalized ability. An evaluation of this assumption would carry us far into the problems of statistical analysis. There is evidence for both specificity and generality of accuracy. Vernon (1933) takes a somewhat middle position on the subject, doubting whether there is such a thing as completely general "intuitive" ability. The early work of Wells (1907) and Hollingworth (1911) found no general ability. Estes' judges showed quite consistent, general ability (1937). Cartwright and French (1939) indicate that judges may be good in certain areas of prediction, not so good in others. It is difficult not to agree with G. W. Allport's conclusion (1937, p. 512) that it would be more erroneous to "consider the ability entirely specific than to consider it entirely general."

The evidence on the relationship between intelligence and accuracy in judging others is somewhat ambiguous. If anything, it points to a slight positive relationship. Positive correlations were found by Allport and Allport (1921), Adams (1927), Sweet (1929), Vernon (1933), the OSS group (1948), Dymond (1949) and Taft (1950). The last author distinguishes usefully between analytic and non-analytic (empathic) judgment. The positive correlations he found were with analytic judgments. Other workers failed to obtain positive results: among them, Bender (1935), Kelly, Miles and Terman (1936), Walton (1936, using children as subjects), Estes (1937), Travers (1941 and 1943), and Taft (1950) (non-analytic judgments). While the range of intelligence spanned in most of the studies was relatively small, it seems as if very low intelligence would compromise the accuracy of judgments while high intelligence is no guarantee of good performance.

Experience has generally been assumed to be a correlate of ability to

judge others accurately. Little systematic testing is available to prove or disprove the point. Bender (1935) and Taft (1950) both indicate that their results confirm the view, but neither states with much explicitness what is involved in experience. Taft does state, however, that experience in the cultural milieu of the people to be judged is what appears to be critical, suggesting that a knowledge of cultural pressures increases the predictive power of a judge.

The role of complexity is also ambiguous. G.W. Allport (1937) has remarked that it is doubtful whether subjects can judge correctly those more complex than they are. If age in adulthood be taken as a measure of complexity, few age differences are reported. Estes (1937) found age unrelated to the judging ability of his adult subjects. Walton's finding (1936) suggests an increase in empathic ability with age. But age in adulthood is a variable comprising more than complexity. If the findings on similarity between judge and judged be brought to bear here, one might predict (in the light of other studies reported) that people of like complexity would judge each other more accurately than people of different degrees of complexity. There is reason to suppose that the complex scholar-statesman, for example, may misunderstand the peasant in characteristic ways much as the peasant may misunderstand him in other ways. The matter would probably remain in doubt because of the criterion problem: complex people are usually used as the independent judges and, if consensus were used, who is to decide on those whose agreement counts?

Detachment has often been mentioned in the literature as associated with the ability to judge others accurately. Thus, studies previously cited (e.g., Adams, 1927; Vernon, 1933; Taft, 1950) found good judges to be less social and

extraverted. Estes (1937) reports that among his judges, those who became emotional in the process of making judgments did least well. Taft (1950) lists the adjectives that, in the opinion of a psychological assessment staff, were found to characterize the good judge more often than the poor judge: alert, calm, capable, cautious, clear-thinking, efficient, honest, intelligent, logical, organized, persevering, planful, practical, quiet, realistic, reliable, reserved, serious, sincere and thorough. (The adjectives italicized were significant at the .001 level of confidence in distinguishing good and poor judges). The good judge seems, indeed, to have abundant capacity for cool-headed evaluation of others.

G. W. Allport (1937) is of the opinion that one of the more important single qualities of the good judge is his esthetic sensitiveness and ability. Supporting evidence for this view is provided by the studies of Allport and Allport (1921); F. H. Allport (1924); Vernon (1933); Bender (1935); Walton (1936); Estes,(1937); and Taft (1950). Taft found that the positive correlation between judgment and esthetic sensibility did not hold when sophisticated artistic interests were involved, but he obtained results analogous to those quoted above when the element involved was of the nature of simple esthetic sensitiveness.

The relationship between social adjustment or social adroitness and ability to judge others is a complex one. Adams (1927) found that the good judge is not only an introverted, unsociable person with low social values, but that he is also egotistic and cold blooded in his utilization of others for his own purposes. Allport and Vernon (1933) also find that good judges tend toward introversion. The characteristics of the good judge given by Taft (vide supra) seem to agree more with Allport's and Vernon's views than they do with the more extreme

ones of Adams. The middle ground is occupied by the findings of Hanks (1936) and the OSS group (1948), who found no relationship to speak of between social adjustment and ability to judge others. In this connection, there is a very interesting statement in the Assessment of Men (1948, p. 298). The "judgment-of-others test" was first included in the OSS battery "because it was thought that the ability to size up other people is probably correlated positively with the ability to maintain smooth interpersonal relations. Experience proved that this was true, but to a much slighter extent than we had expected. In a great many instances there was a wide gap between knowing and doing in the realm of social relations." The test was eventually dropped.

At the other extreme, however, are studies that maintain that high skill in judging is related to social adroitness. Most of these studies, however, involve non-analytic, empathic judgments and therefore do not constitute necessarily contradictory evidence. Travers (1943) found the ability to judge to be correlated positively with scores on the Bell Social Adjustment Inventory. Cottrell and Dymond (1949) found that their most empathic judges were expressive, outgoing, optimistic and warm.

There are also studies indicating that sociometric popularity (taken here as an indication of social adjustment) is correlated with ability to predict the opinions of a group: e.g., Chowdhry and Newcomb (1952), Wood (1948), and Gage (1952). However, several studies that have not been able to replicate these findings can also be listed (Personnel Research Board at Ohio State Univ., 1949; Hites, 1948; Sprunger, 1949; Hites and Campbell, 1950). It is difficult to say what kind of ability is involved in prediction of group opinion. The positive

results may be an indication of greater conversational interaction with other group members by the sociometric "stars." Under these circumstances, they might be in a better position as informal poll takers. ⟵ *Insert*

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On the other hand, leaders may attain their status because of their superior capacity to judge group opinion. A third explanation has to be considered, in the light of the many findings indicating that a leader exerts a strong influence upon the opinions of the group (Hemphill, 1949; Gibb, 1950; Stogdill, 1950; Talland, 1953). If, as may be expected (cf., e.g. Bender and Hastorf, 1953), projection plays an important role in the judgment of others' opinions, it should result in the leader's judgments coming closer to the group opinion than judgments by others.

Bender and Hastorf (1950, 1953) indicate that what may appear like accuracy ("social sensitivity") in being able to estimate others' attitudes and feelings may be a function either of a combination of projection by the judge abetted by similarity between judge and judged and/or of something approaching empathy. They distinguish "raw empathy" scores from "refined" scores -- the former being a straightforward accuracy score, the latter being raw accuracy corrected for the contribution of the judge's projection of his own attitudes. In general, their conclusion is that some subjects tend to be consistently empathizers and others consistently projectors, and that studies of judgment of others must take into account the projection factor in drawing conclusions about accuracy. Their findings, indicating that judge-subject similarity is uncorrelated with "refined empathy", whilst similarity and "raw empathy" scores are highly correlated, support this caution. The work of the above writer adds, by the way, to the studies of the "empathic response" by Dymond (1948, 1949) and Cottrell and Dymond (1949) where consideration of these two factors was not given systematic attention.

d. That there are systematic relationships between various personality variables and judging ability. Detachment helps. Social adjustment and intelligence can, under certain conditions, improve judgment.

e. That a global or intuitive approach seems to improve judgment. It may well be that the correlation between judging ability and esthetic orientation can be accounted for -- at least in part--in these terms. Over and beyond this, the esthetic orientation may be associated with a form of empathic capacity. It may turn out to be the case, finally, that empathic ability (as yet poorly understood) may be the critical capacity in this difficult form of cognitive enterprise.

Studies of Impression Formation.

If, during the period of the '20's and '30's, the main emphasis was upon **accuracy** in judging "personality," the trend today is upon the perception of others. The formation of impressions has become the central concern. What in the previous period were "errors" of judging are now the very phenomena under study.

When such early studies as those of Zillig (1928) were published -- showing the effect of attitude on the perception of another's performance -- they were generally interpreted as studies in "suggestion." With the gradual absorption of field theory, the Gestalt viewpoint, and the psychoanalytic conceptions of the psychopathology of everyday life, the orientation of research began to change. Bartlett (1932) showed, for example, that photographs of Army and Navy officers were more often perceived by young men subject to military duty than by others as embodying command and threat. At about this time Murray (1933) published his study on the perception of maliciousness of faces by young girls after they

had been playing a game of "Murder." Lewin (Lewin, Lippitt and White, 1939) and

his students were, by the late 1930's, becoming increasingly concerned with the

perceived power of group leaders and the beginnings were being made in formu-

lating a concept of "social perception."

Another source of influence was, of course, the widespread use of the TAT

in clinical practice. If inferences might be made about the personality of the

subject on the basis of how he interprets people in a TAT card, then the process

of social perception or apperception might itself be worthy of study. The in-

vestigation of motivational factors in perception gave further impetus to the

trend, particularly the studies of Murphy (e.g., Levine, Chein and Murphy, 1942;

Proshansky and Murphy, 1942), Bruner and Postman (e.g., 1949), and others (e.g.,

Sanford, 1936, 1937; McClelland and Atkinson, 1948, 1949; Atkinson and McClelland,

1948; McClelland, Clark, Roby and Atkinson, 1949).

It would be incorrect to give the impression, however, that prior to the

trends noted above there had been little concern with "social perception" as it

has come to be called. Indeed, there had been much speculation and observation

of the nature of "understanding" others — much of it stimulated by philosophical-

psychological controversy in Germany. Theories of intuition, empathy, and in-

ference were important stimuli to thinking about the process of forming im-

pressions. G. W. Allport has summarized these early beginnings masterfully in his

Personality (Chapter XIX) and the reader is referred to this source for further

information. We shall confine ourselves to more recent investigations in the

discussion that follows.

A discussion of forming impressions of another personality conveniently

begins with a consideration of the work of Asch (1946, 1952), following up earlier studies and observations by Wertheimer and Arnheim (Arnheim 1928, 1949) and Köhler (1929). Asch operates within the Gestalt tradition. He begins with the assumption that certain kinds of personal properties can be directly perceived, noting the experiment of Heider and Simmel (1944) in which schematic objects moving in appropriate ways in a motion picture are seen as performing human acts and having human characteristics. Directly apprehended human characteristics are part processes of a configuration of the perceived personality which has Gestalt characteristics in the manner of any other organized perceptual or cognitive field.

To demonstrate the organized nature of impressions of personality and the determination of part processes by the total configuration, Asch (1946) gave groups of students two lists of discrete qualities said to belong to a person, the first list being: intelligent - skillful - industrious - WARM - determined - practical - cautious; and the second list being identical with the above one in all respects except that the word WARM was replaced by the word COLD. The subjects were instructed to write sketches and then to select from a check-list of pairs of opposite traits the terms that best fitted the impression they had formed. The "warm" and "cold" groups differed markedly in their impressions. Asch concluded that a change in one quality produced a basic change in the entire impression: the "warm" group perceiving the imaginary stimulus person as wise, humorous, popular and imaginative, while the "cold" group formed an impression of a strikingly different order. Importantly, however, the warm person was not viewed more favorably in all respects, so that Asch concluded that the differentiating quality does not affect all qualities indiscriminately (halo effect).

Mensh and Wishner (1947) carried out the "warm-cold" experiment with
different groups, obtaining essentially the same results. Kelley (1950), realiz-
ing the limitations of using fictitious stimulus persons (cf. Luchins, 1948), em-
ployed the warm-cold procedure in an experiment where students were to rate a
real instructor whom they met after they were briefly informed as to what type
of person he was. Half the subjects were told among other things that the in-
structor was warm, and the other half that he was cold. Kelley found substan-
tially the same effect reported by Asch.

In another experiment (1952) Asch, having replaced warm and cold with
the words polite and blunt, found that the differences in the resulting im-
pressions of a fictitious person were much less marked, concluding that not all
traits are equally central. By embedding the quality "warm" differently among
different traits, Asch further showed that the content and function of a personal
quality is a dependent part of its surrounding qualities. Processes of organi-
zation and grouping occur among the properties noted, in the course of which
each finds its specific content and functional value. It is on this basis that
a given characteristic becomes central or peripheral (1952, p. 211). Again,
Asch indicates that the order in which the same list of traits is presented to
the judge produces different impressions. The traits given first, he concludes,
set up a direction that exerts a continuous effect on the later traits. The
initial impression acquires a certain stability. This was also shown by Dailey
(1951) in more complicated judging situations where judges first came to a per-
sonality formulation on the basis of a portion of the total information available,
and then reconsidered each case in the light of the entire material. First

impressions made later material less effective.

Another experiment on the configurational nature of impressions and their relative cohesiveness was performed by Asch (1952). He asked subjects to form impressions from two trait lists: "intelligent-industrious-impulsive" and "critical-stubborn-envious." After they had formed impressions of two separate persons, he requested that they regard all the traits as characterizing a single individual. Subjects experienced considerable difficulty in doing so; but not so subjects who, from the beginning, had been told that all the terms referred to the same individual. Kastenbaum (1951) has reported closely related findings. She made three similar recordings of telephone conversations in such way that warmth, neutrality, and coldness were characteristic of each conversation in turn. When single conversations were presented to the subjects as stemming from different people they formed impressions consistent with the warm, cold or neutral quality of the stimulus. When told later that the three conversations were with the same person, they had difficulty forming a unified impression. Those subjects who heard all three forms of stimuli, but as stemming from the same person, had less difficulty by virtue of assimilating or omitting contradictions from the main personality theme.

Haire and Grunes (1950) obtained analogous results when they presented their student subjects with two descriptions of a factory worker. One description contained the item "intelligent," the other, identical in all other respects, did not. They found that the inclusion of "intelligent" was a disturbing factor in the formation of impressions by subjects with anti-labor attitudes, apparently because they did not consider this quality as appropriate to a factory worker.

The judges coped with the situation in a number of ways: some denied the existence of the item, some distorted it and encapsulated it so as to render it unimportant, some pointed out the incongruity, and finally others integrated the item by altering their stereotype of factory worker.

There are several studies that cast some light on the thorny problem of the relationship between value orientation and the impression one gets of others. Thus Fensterheim and Tresselt (1953) asked subjects to attribute traits (reflecting the six Spranger value areas of the Allport-Vernon test) to a series of photographs, and to rate the photographs in terms of preference. They found that "the closer the value system projected into the stimuli /pictures/ resembled the value system of a subject, the greater was the liking." Stagner (1948) has found an analogous effect. Students are first separated into a pro-labor and anti-labor group. They then check in a list of traits those characterizing factory workers and those characterizing executives. Subjects then mark the traits characterizing themselves, and finally indicate the pleasantness or unpleasantness of the traits in the list. Pro-labor students ascribe to themselves more of the same traits that they ascribe to workers and see these traits as pleasant. Stagner urges a recognition of perceptual factors in aggravating industrial conflict.

Finally, there are a series of studies on the perception and recognition of ethnic group membership by Allport and Kramer (1946), Carter (1948), and Lindzey and Rogolsky (1950) treated elsewhere in this volume (see Chapter ___) that require brief comment here. These studies, taken as a group, indicate

increased sensitivity to ethnic characteristics as a function of increased preju-

dice, a heightened or vigilant awareness of cues to ethnic origin. The question

they raise, particularly the last of the studies cited, is whether people are not

differentially sensitive to those personality characteristics in others that mat-

ter most in their own interpersonal adjustment. Certainly the studies of social

perception in groups would tend to underline this source of selectivity in the

perception of others. (See Chapter ...).

High-low authoritarianism as measured by the California E. scale (Adorno,
Frenkel-Brunswik, Levinson, and Sanford, 1950)
has also been found to be a determinant in the perception of others. F. E. Jones

(1953) in a well controlled study, presented naval recruits scoring high and low

in authoritarianism with a recording of an interview with a man who might become

their squad leader. This stimulus person was varied systematically, for matched

groups, along dimensions of power and leadership attitudes. As shown in their

ratings, the low authoritarians are generally more sensitive than the high

authoritarians to variations in the psychological characteristics of the stimulus

person, and more inclined to pass critical judgment on the leadership figure.

Whereas Thibaut and Riecken (1953, in press) report the heightened sensitivity

of the High Authoritarian to variation in the military rank (or institutionally

derived power) of the stimulus persons, Jones finds that high authoritarians are

relatively insensitive when presented with variations in personal power (force-

fulness) as compared with the low authoritarians. A more general finding on the

social perception of the ethnically prejudical is provided by a study of Scodel

and Mussen (1953). They found that people with high ethnic prejudice are less

able to judge other people's social attitudes and traits correctly than are

people with low ethnic prejudice.

Studies of impression formation are now appearing with considerable frequency in the journal literature of psychology. The trend appears to be in the direction of investigating what kinds of organized impressions are formed under varying conditions of cue, role, set, and prior information. There appears to be a deemphasis of interest in the nature of judgmental accuracy, and a renewed emphasis in the judging process, whether it produces correct or erroneous impressions. To a considerable degree, the systematic phenomenological emphasis suggested by MacLeod in his programmatic paper of 1948, by Krech and Crutchfield in their textbook (1948), and by Lewin (1947) in his two papers on "frontiers in human relations," this emphasis has found its way into the design of experiments in this area. Unquestionably, a deeper historical root can be found in the writings of the Gestalt psychologists and analytically oriented dynamic psychologists who have influenced the authors noted above.

It seems to us that there are at least two rather obvious gaps present in the impression formation literature. The first concerns the manner in which naive subjects conceptualize and categorize other people. As we have said before and risk repeating now, there are no systematic studies devoted to an analysis of the categories used by ordinary people in everyday life for describing other people. What features of others are most likely to be noticed by people of various backgrounds in various kinds of situations?

Moreover, what kinds of naive, implicit "theories" of personality do people work with when they form an impression of others? We know from the Asch studies that such terms as "warm" and "cold" when introduced into a description of personality alter the apparent quality of certain other traits. In everyday

'personality theory," we would ask, what kinds of inferences is a person led to by knowledge that another person is "warm"? A study of inferential relations between attributes of personality is necessary if we are to understand commonsense personality theory and the way in which certain forms of knowledge about another person come to influence drastically the total impression formed.

The second consideration has to do with the special status of human beings as objects of knowledge. It is commonplace to say that a person being perceived is different from an inanimate object. Nonetheless, there is one feature of this difference that has been persistently overlooked in the design of research. Many of the cues used in judging another person are cues that we as perceivers are instrumental in producing. Since in this special case, the object of our perception is reactive to us, we evoke cues from him by probing or, indeed, simply by being in his presence. Little research effort has gone into the investigation of how this feature of the interpersonal perceptual situation affects impression formation. Do certain types of individuals have certain systematic effects on the behavior of certain other types of individuals that leads them to see these other people in certain characteristic ways? Do dominant individuals, for example, have the effect of evoking noticeably submissive behavior in their less dominant peers with the result that other people are seen as more passive (cf. Icheiser , 1949)? Another feature of this same phenomenon is the existence of certain forms of probing behavior -- often of a sort not even reportable by the perceiver. Certain people are said to be "clever" in judging others. Is this by virtue of the fact that they have good probing techniques for evoking relevant cues in others?

The two problems mentioned -- the typologies used in forming impressions and the cue-evoking power of the perceiver -- are of course relevant not only in impression formation but also in the judgment of emotion and in making accurate appraisals of other personalities. The attention we have given to these problems in this concluding section is admittedly in the interest of urging that more work be directed toward what seems to us a weak link in the chain of research that is gradually being constructed in the study of how others are perceived and judged.

CONCLUSIONS

Three areas of inquiry have been passed in review: the judgment of emotions from facial and other forms of expression, the judgment of personality characteristics from various external signs, and the formation of impressions of other personalities. A prudent conclusion would be that work in all of these areas is still very much in its infancy, and that growth in each is to some extent hampered by serious problems of experimental method and design.

There is as yet little agreement on what kinds of response categories should be used by those whose judgments or perceptions are being studied. We have suggested that systematic research be directed toward understanding the nature of preferred descriptive responses used by subjects in different inter-personal situations.

It is also fair to say that few conventions have as yet been worked out concerning the manner of presenting expressive material on which judgment may be based. In a rather willy-nilly manner, for example, a vast literature arose based

on judgments of emotion from still pictures and drawings of human faces -- when indeed we know that it is rarely that one makes a judgment based upon a frozen millisecond of exposure to a face expressing emotion with all other forms of information lacking. Again, we feel that more research is required about the kinds of information or cues actually used by people in judging emotions and traits or in forming impressions. To what degree are situational factors important in narrowing the range of possible alternative ways in which a person will be judged? To what extent is the role relation between perceiver and perceived a constraining factor? How much does the perceiver's probing behavior or expressive style limit the kinds of cues that will be emitted by another individual?

There is still some distance to be gone in carrying out adequate analyses of the stimulus properties of people whose traits or emotions are being judged. The work of Woodworth (1938) and Schlosberg (1952) and Brunswik (1947) point to possible directions of inquiry. There is now sufficient evidence to suggest that it is the exception to find that specific emotions are characterized by invariant patterns of expression common to large masses of people. There is, however, evidence to indicate that individuals appear to be relatively self-consistent in their expressive style from one mode of expression to another (e.g., Allport and Vernon, 1933). Most categories we use for describing the states of others permit the utilization of a multitude of different cues: happiness is inferred from smiling, jumping up and down, clapping the hands, etc. How are these varying cues learned and how is this learning affected by the culture in which one lives? It seems unlikely that conventional stimulus analysis of expression carried out with caliper will yield much of value in understanding the stimulus properties

of faces in a state of emotion or of overt behavior indicative of certain traits. Rather, the likelihood is that careful studies of the perceiver will be necessary to determine what wide ranges of stimulation provide equivalent cues for judgment. Once such ranges have been delimited, it may then be possible to deduce certain common cues.

The development of research in the three areas covered has been somewhat hindered by an excess of empirical enthusiasm and perhaps a deficit of theoretical surmise. Extension of various forms of psychological theory into the area of interpersonal judgment may have the effect of introducing order where little now exists. Thus, the introduction of Gestalt theory into the study of impression formation has had such an effect. Extension of learning theories to the phenomena of learning how to judge or discriminate others might have a similar effect. There are inherent in psychoanalytic theory various suggestive hunches about judgment of others as a function of "object relations" that might also yield interesting hypotheses for testing. Again, the relevance of theories of cognition — concerned with concept formation, the formation of inferences, generalization, and the like — may be fruitfully extended to cover the very important special case of how we come to know about others.

One final point upon which most social psychologists would agree provides a proper last conclusion. The first step in reacting to another is forming an impression of him. Later reactions depend on this first step. If there is to be a science of interpersonal behavior, it will rest upon a cornerstone of social perception. If for this reason only, far more effort must be expended on the task of discovering how people come to perceive other people as they do.

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